

DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS D350-591 REV. G OR EARLIER
AND
INSTRUCTIONS OF CONTINUED AIRWORTHINESS ICA-D350-591 REV. 2 OR EARLIER

REF CANADIAN STC: SH92-6

REF FAA STC: SH967NE

For D350-591-121/-122/-123/-124/-133 steps, customers have the option of installing D2732-030 cushions under the D2230-1/-3 clamps to accommodate varying crosstube diameters and to improve fit. It is also acceptable to use longer or shorter AN4 bolts, and/or extra AN960JD416 washers under the nut to ensure 1.5 to 4 threads in safety. See Figure 1 on sheet 2 of this service instruction for reference.

For D350-591-121/-122 steps at CHG 005, D350-591-123/-124 steps at CHG 004, and D350-591-133 steps at CHG 003, the parts list of D350-591 Rev. G and ICA-D350-591 Rev. 2 is amended as follows:

ADD:

Qty -121	Qty -122	Qty -123	Qty -124	Qty -133	Part Number	Description
X					D350-591-121	Heli-Access-Step™, Short Step – High Skid, LH
	X				D350-591-122	Heli-Access-Step™, Short Step – High Skid, RH
		X			D350-591-123	Heli-Access-Step™, Short Step – Low Skid, LH
			X		D350-591-124	Heli-Access-Step™, Short Step – Low Skid, RH
				X	D350-591-133	Heli-Access-Step™, Aft Maintenance Step
2	2	2	2	8	D2732-030	CUSHION
2	2	2	2	8	AN4-16A	BOLT

The DSI-9459-011 kit is available for customers with earlier model D350-591-121/-122/-123/-124 steps. Longer AN4 bolts are provided to fasten the clamps. The DSI-9459-013 kit is available for customers with earlier model D350-591-133 steps.







Qty -011	Qty -013	Part Number	Description
X		DSI-9459-011	Rubber Cushion Kit (for -121/-122/-123/-124 steps)
	X	DSI-9459-013	Rubber Cushion Kit (for -133 steps)
2	8	D2732-030	CUSHION
2	8	AN4-16A	BOLT

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: 
D. SHEPHERD (DE # 02)

DATE: 09.06.24
CERT. NO.: SH92-6
ISSUE NO.: 11

B	AN4-16A WAS -17A FOR -013/-133 KIT	CP	09.06.24
A	NEW ISSUE	CP	09.04.17
REV.	DESCRIPTION	BY	DATE
DESIGN		DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN			
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		DSI 9459	SHEET 1 OF 2
APPROVED		TITLE	SCALE
DE APPR.		OPTIONAL CLAMP MODIFICATIONS	NTS
DATE	09.06.24	COPYRIGHT © 2009 BY DART AEROSPACE LTD <small>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

5. PARTS LIST

Qty -111A	Qty -113	Qty -115	Qty -117A	Qty -119	Qty -133	Part Number	Description
X						D350-591-111A	<i>Heli-Access-Step</i> ™, Long Step – High Skid
	X					D350-591-113	<i>Heli-Access-Step</i> ™, Short Step – High Skid
		X				D350-591-115	<i>Heli-Access-Step</i> ™, Short Step – Low Skid
			X			D350-591-117A	<i>Heli-Access-Step</i> ™, Pre-Flight Step
				X		D350-591-119	<i>Heli-Access-Step</i> ™, Long Step – Low Skid
					X	D350-591-133	<i>Heli-Access-Step</i> ™, Aft Maintenance Step
	1					D2310	STEP ASSEMBLY (HIGH-SHORT)
1						D2311	STEP ASSEMBLY (HIGH-LONG)
		1				D2354	STEP ASSEMBLY (LOW-SHORT)
				1		D2355	STEP ASSEMBLY (LOW-LONG)
					1	D2946-041	STEP ASSEMBLY (MAINTENANCE)
4	2	2	2	2		D2171	CLAMP
4	2	2	2	2		D2182B035	CUSHION
					4	D2230-1	MOUNTING LUG
					4	D2230-3	MOUNTING LUG
8	4	4	4	4		D2274	RADIUS BLOCK
			1			D2362-041	SUPPORT BRACKET
2	1			1		D2362-3	SUPPORT BRACKET
		1				D2362-5	SUPPORT BRACKET
2	1	1	1	1	2	D2856-400-720	ABRASION STRIP
					1	D2945	MOUNTING PLATE
2	2	2		2		AN3-37A	BOLT
					2	AN4-7A	BOLT
					4	AN4-11A	BOLT
					8	AN4-14A	BOLT
		4				AN4-16A	BOLT
8	4			4		AN4-20A	BOLT
1	1	1	4	1		AN4-22A	BOLT
4	4	4		4		AN960JD10	WASHER
10	6	2	4	6	14	AN960JD416	WASHER
		4				AN960JD416L	WASHER
2	2	2		2		MS21042L3	NUT
9	5	5	4	5	14	MS21042L4	NUT

Qty -121	Qty -122	Qty -123	Qty -124	Part Number	Description
X				D350-591-121	<i>Heli-Access-Step</i> ™, Short Step – High Skid, LH
	X			D350-591-122	<i>Heli-Access-Step</i> ™, Short Step – High Skid, RH
		X		D350-591-123	<i>Heli-Access-Step</i> ™, Short Step – Low Skid, LH
			X	D350-591-124	<i>Heli-Access-Step</i> ™, Short Step – Low Skid, RH
1				D2351-041	STEP ASSEMBLY (HIGH-SHORT, LH)
	1			D2351-042	STEP ASSEMBLY (HIGH-SHORT, RH)
		1		D2356-041	STEP ASSEMBLY (LOW-SHORT, LH)
			1	D2356-042	STEP ASSEMBLY (LOW-SHORT, RH)
1	1 ✓	1	1	D2230-1	MOUNTING LUG
1	1 ✓	1	1	D2230-3	MOUNTING LUG
1	1 ✓	1	1	D2856-400-720	ABRASION STRIP
2	2 ✓	2	2	AN3-37A	BOLT
3	3 ✓	3	3	AN4-13A	BOLT
4	4 ✓	4	4	AN960JD10	WASHER
6	6 ✓	6	6	AN960JD416	WASHER
2	2 ✓	2	2	MS21042L3	NUT
3	3 ✓	3	3	MS21042L4	NUT

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Revision: G
Date: 08.10.06

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

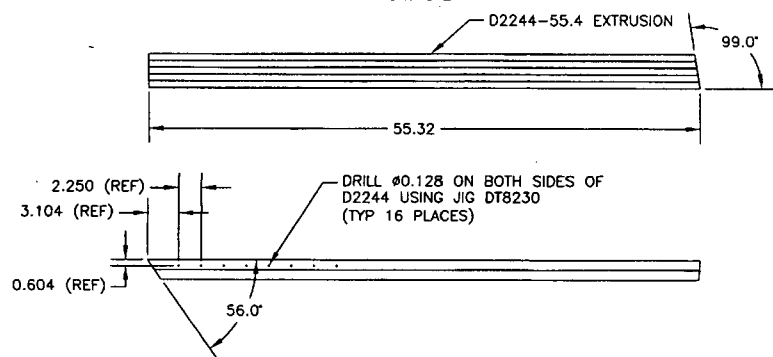
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Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

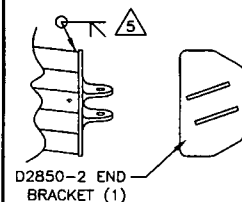
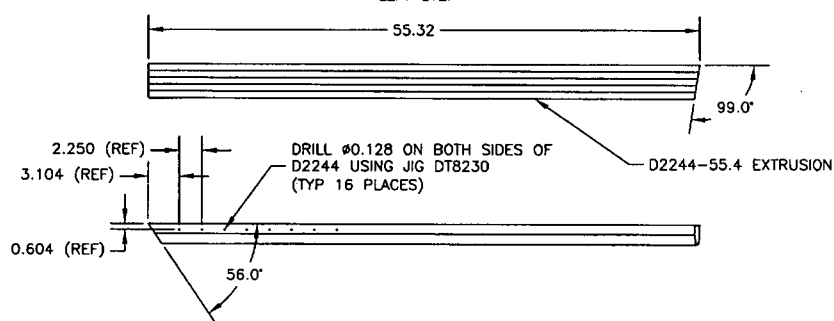
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

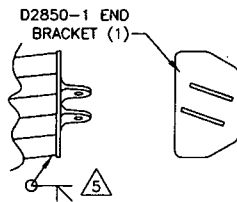
D2351-2 CUTTING/DRILLING DETAIL
RIGHT STEP



D2351-1 CUTTING/DRILLING DETAIL
LEFT STEP



DETAIL A
SCALE: 1:4



DETAIL B
SCALE: 1:4

D2582 STEP LEG ASSEMBLY (1)

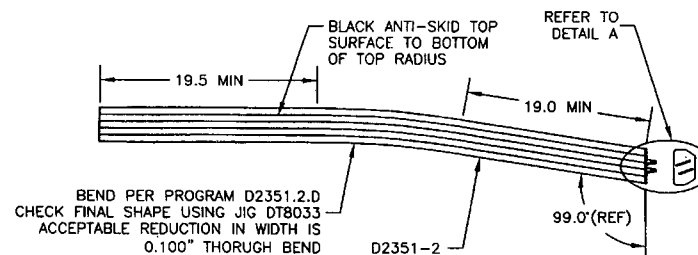


GENERAL NOTES

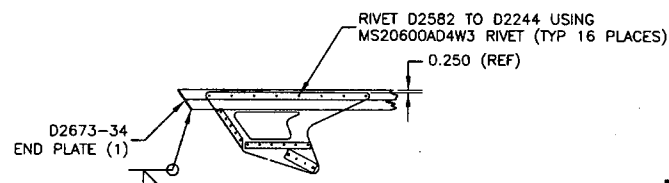
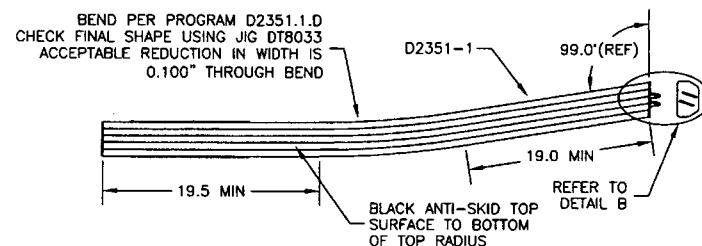
- 1) WELD PER DART QSI 004
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT GLOSS WHITE (4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

CHAMFER D2244 EXTRUSION 0.075"x45" BEFORE WELDING D2850-1 OR D2850-2 IN PLACE. DO NOT GRIND FLUSH.

D2351-042 BENDING/ASSEMBLY DETAIL
RIGHT STEP



D2351-041 BENDING/ASSEMBLY DETAIL
LEFT STEP



RELEASED
05.11.28

UNDER REVIEW

REV. E
ECN 105

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DESIGN KE	DRAWN BY PH	DART	DART AEROSPACE LTD. HARRISBURG, ONTARIO, CANADA
CHECKED #	APPROVED #	DRAWING NO. D2351	REV. E SHEET 2 OF 2
DATE 05.11.14	TITLE HIGH FLOAT STEP ASSEMBLY	SCALE 1:12	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART

DESIGN KE	DRAWN BY PH	DART AEROSPACE LTD. HAWKESBURY, ONTARIO, CANADA	
CHECKED #	APPROVED #	DRAWING NO. D2351	REV. E SHEET 1 OF 2
DATE 05.11.14		TITLE HIGH FLOAT STEP ASSEMBLY	SCALE NTS
A	95.02.15	NEW ISSUE	
B	97.05.22	END CAPS CHANGED	
C	97.07.23	ADDED BUSHING AND FACING INFO	
D	98.12.17	CHANGED TO BEND, D2850 REPLACES D2357 & D2358, INCORP. DEO 9084	
E	05.11.14	UPDATE FINISHING NOTE	

D2351 HIGH FLOAT STEP ASSEMBLY PARTS LIST

Part No.	Description	QTY -041	QTY -042
D2351-041	High Float Step Assembly (LH)	X	
D2351-042	High Float Step Assembly (RH)		X
D2244-55.4	STEP EXTRUSION*	1	1
D2582	STEP LEG ASSEMBLY	1	1
D2673-34	STEP END PLATE	1	1
D2850-1	END BRACKET	1	
D2850-2	END BRACKET		1
MS20600AD4W3	RIVETS	16	16

*cut per drawing

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 61559

Ref 10-F-30

RELEASED
05.11.28

PH
ECN 1105

UNDER REVIEW

07.11.29
PAC 1105 265

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Page 4

* Monday, August 30, 2010 11:22:16 AM

Work Order ID: 61559

Parent Item: D350-591-122

Parent Item Name: Heli-Access-Step, RH

Start Date: 8/30/2010

Required Date: 9/6/2010

Start Qty: 2.00

Required Qty: 2.00

D2856-400 x1 @ 720" long

 Abraison Strip

Manufactured No

290 f

313.4060 0.6 1.2

Location

Loc Qty

Loc Code

ST403

313.4060421

56626

97.4060421

59920

216

Purchased No

290 Each

2,176.000

MS21042L3

 Nut

Location

Loc Qty

Loc Code

ST300

2176

114523

115

114718

61

114784

2000

Manufactured No

290 Each

0.0000

D2732-030 x2 @ 3.0" long

 Rubber Cushion

Purchased No

290 Each

200.0000

AN4-16A

 Bolt

Location

Loc Qty

Loc Code

ST

105

115374

105

ST358

95

115016

45

115159

50

ST360

105

Monday, August 30, 2010 11:22:16 AM

Shop Packet Print

Page 4

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Monday, August 30, 2010 11:22:16 AM

Work Order ID: 61559

Parent Item: D350-591-122

Parent Item Name: Heli-Access-Step, RH

Start Date: 8/30/2010

Required Date: 9/6/2010

Start Qty: 2.00

Required Qty: 2.00

D2230-3

Manufactured No

290 Each

149.0000

1 1/2

Lug

Location

Loc Qty

Loc Code

ST476

149

55452

2

59418

8

60191

39

60846

100

D2582

Manufactured No

290 Each

14.0000

1 2

Step Leg Assembly

Location

Loc Qty

Loc Code

WA

14

51343

3

53634

11

D2673-34

Manufactured No

290 Each

178.0000

1 2

End Plate

Location

Loc Qty

Loc Code

WA

178

57527

1

59690

177

D2850-2

Manufactured No

290 Each

10.0000

1 2

End Cap

Location

Loc Qty

Loc Code

WA

10

47114

10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Page 2

Monday, August 30, 2010 11:22:16 AM

Work Order ID: 61559

Parent Item: D350-591-122

Parent Item Name: Heli-Access-Step, RH

Start Date: 8/30/2010

Required Date: 9/6/2010

Start Qty: 2.00

Required Qty: 2.00

AN3-37A
Bolt

Purchased

No

290

Each

666.0000

2

4



10/10/148

Location

Loc Qty

Loc Code

ST353

666

105425

166

111668

500

4

AN4-13A
Bolt

Purchased

No

290

Each

740.0000

3

6



10/10/145

Location

Loc Qty

Loc Code

ST357

240

115108

240

ST358

500

115159

500

6

AN960JD10
Washer

NAS1149D0363J

Purchased

No

290

Each

6.0000

4

8



1115622 10/10/145

Location

Loc Qty

Loc Code

ST

6

107715

6

AN960JD416
Washer

NAS1149D0463J

Purchased

No

290

Each

0.0000

6

12



1115647 10/10/145

D2230-1
Lug

Manufactured

No

290

Each

31.0000

1

2



B6713 10/10/145

Location

Loc Qty

Loc Code

ST476

31

60289

31

Monday, August 30, 2010 11:22:16 AM

Shop Packet Print

Page 2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Page 1

Monday, August 30, 2010 11:22:16 AM

Work Order ID: 61559

Parent Item: D350-591-122

Parent Item Name: Heli-Access-Step, RH

Start Date: 8/30/2010

Required Date: 9/6/2010

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP Rev:E02.10.21 Re-format; Incorporated D2351-041 IPP KJ/RF

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

MS21042L4

Purchased

No

120

Each

2,527.000

3

6

10/10/14



Nut

Location

Loc Qty

Loc Code

ST300

2527

113422

68

114523

28

114718

16

114784

495

115108

1920

D2244-116

Manufactured

No

150

Each

121.0000

0.5

1

10.09.27



Step Extrusion

Location

Loc Qty

Loc Code

WA

121

57850

35

60307

86

MS20600-AD4W3

Purchased

No

220

Each

1,577.000

16

32

10.10.12



Cherry Rivets

Location

Loc Qty

Loc Code

ST321

1577

107939

822

111636

755

32

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 61559



Page 7

Monday, August 30, 2010 11:37:24 AM

Item ID: D350-591-122

Accept



Setup Start



Revision ID:

Stop



Item Name: Heli-Access-Step, RH

Start Date: 8/30/2010 Start Qty: 2.00



Cust Item ID:

Required Date: 9/6/2010 Req'd Qty: 2.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

300

QC4- 100% Inspect kits for completeness

0.00



QC

Memo

0.00

Quality Control

2 10/10/15
- Kit bagged separately & place with steps
- steps I-D-I have kits in steplog.

310

Packaging

0.00



Packaging

Memo

0.00

Packaging

Identify and pack for shipping as per PPP D350-591-122
Location: _____ □ PPP Rev: 12

CV 10/10/15 (2)

320

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

10/10/18 (2)

10/10/15 (2)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

W/O: 61559		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
10/10/13	#	Perm. Chang insert a step at this location for a QCS to inspect work to current step.	HA	10.10.18			J 10/10/13

Part No: D350-591-122 PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Item ID: D350-591-122

Accept



Setup Start



Revision ID:

Stop



Item Name: Heli-Access-Step, RH

Start Date: 8/30/2010 Start Qty: 2.00



Cust Item ID:

Required Date: 9/6/2010 Req'd Qty: 2.00

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
230 	QC9- Inspect visual per QSI004- Fusion Welds	0.00							
QC Quality Control	Memo	0.00							
240 	QC5 → inspect work to count shn 8/30/13	0.00							
250 	Chemical Conversion Coat per QSI005 4.1	0.00							
HandFinish Hand Finishing	Memo	0.00							
260 	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum	0.00							
Powdercoat Powder Coating	Memo START TIME: 2:45 FINISH TIME: 3:15	0.00							

② 10/10/13

8/30/13

2 RH

P10 →

⇒ 10/10/13

2 RH

BK 10-10-13.

M15291

2 RH

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____






NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			



NOTE: Date & initial all entries




Work Order ID 61559

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Item ID:	D350-591-122	Accept		Setup	Start	
Revision ID:					Stop	
Item Name:	Heli-Access-Step, RH					
Start Date:	8/30/2010	Start Qty:	2.00		Cust Item ID:	
Required Date:	9/6/2010	Req'd Qty:	2.00		Customer:	
Reference:						

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	
	QC:	Date:	SPC (Y/N):	Date:		Stop	

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
200		0.00							
	Large Fab					2	φ		
Large Fab	Memo	0.00							
Large Fab	1-Rivet Leg Assembly as per Dwg D2351								
210		0.00							
	QC5- Inspect part completeness to step on W/O	0.00							
QC	Memo	0.00							
Quality Control									
220		0.00							
	Large Fab					2	φ		
Large Fab	Memo	0.00							
Large Fab	1-Weld Fwd End Plate per QSI 004 & Dwg D2351 <input type="checkbox"/> A/RAluminum Rod <u>m108436</u> 2-Grind end plate flush.								

N/A
10.10.12

10.10.12

10.10.12

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 61559

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Item ID: D350-591-122

Accept



Setup Start



Revision ID:

Stop



Item Name: Heli-Access-Step, RH

Start Date: 8/30/2010 Start Qty: 2.00



Cust Item ID:

Required Date: 9/6/2010 Req'd Qty: 2.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
170 QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00				<u>12</u> RH			
180 HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1 Memo	0.00 0.00				<u>2</u>	<u>1</u>		
190 QC Quality Control	QC3- Inspect Part Finish Memo	0.00 0.00				<u>2</u>			

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 61559

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Item ID:	D350-591-122	Accept		Setup	Start	
Revision ID:					Stop	
Item Name:	Heli-Access-Step, RH					
Start Date:	8/30/2010	Start Qty:	2.00			
Required Date:	9/6/2010	Req'd Qty:	2.00			
Reference:						
				Cust Item ID:		
				Customer:		

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	
	QC:	Date:	SPC (Y/N):	Date:		Stop	

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140 QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00		8 10/10/04					
150 Large Fab Large Fab	Large Fab Memo 1-Bevel Fwd and Aft end for welding 2-Weld Aft End Bracket per QSI 004 & Dwg D2351 using Welding Jig DT8033 A/RAluminum Rod 114577 3-Do not Grind Flush	0.00 0.00				2	1		PD 10.10.07
160 QC Quality Control	QC9- Inspect visual per QSI004- Fusion Welds Memo	0.00 0.00							PD 10.10.07

W/O: 61559		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
10/10/13	100	Perm. change update length of Abrasin strips + Rubber cushion. And update header box to include to D350-591 Rev G.	AA	10.10.18			S 10/10/13	
		Rev correct route # to separate the kit hardware. Everything is is currently @ 290. Separate ASSY from kit. perm change				10/10/15	10/10/15	

Part No: D350-591-122 PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 61559

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Item ID: D350-591-122

Accept



Setup Start



Revision ID:

Stop



Item Name: Heli-Access-Step, RH

Start Date: 8/30/2010 Start Qty: 2.00



Cust Item ID:

Required Date: 9/6/2010 Req'd Qty: 2.00



Customer:

Reference:

Approvals:

Process Plan:

*PL*Date: *10-8-30*

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

Draw Nbr

Revision Nbr

D2351

Rev E

PL →

100

0.00



DOCUMENT CONTROL

DC

Memo

0.00

Document Control

Photocopy bluefile and type labels as per PPP D350-591-122 CHG005

10-10-14 BG

110

0.00



Large Fab

Large Fab

Memo

0.00

Large Fab

1-Cut D2244-116 extrusion to 55.32" long as per Dwg D2351 using cutting table setup DT8185-G02-Drill extrusion per Dwg D2351 using Jig DT8230 for rivets.

10-09-27 2

130

0.00



BENDING MACHINE - SKIDTUBES

CNC Bend 1

Memo

0.00

CNC Delta 100 Bender

Bend as per dwg D2351-042 using cnc bender and Folio FT 012. Use bend prog. D2351-042.

10-10-4 (2)